

REMARKS

This application has been carefully reviewed in light of the Office Action dated February 3, 2010. Claims 1 to 6, 15 and 19 to 21 are pending in the application, of which Claims 1, 15 and 17 are independent. Reconsideration and further examination are respectfully requested.

Claims 1 to 6, 15, 17 and 19 to 21 were rejected under 35 U.S.C. § 112, first paragraph. Without conceding the correctness of the rejections, the foregoing amendments to independent Claims 1, 15 and 17 are believed to address these rejections. Reconsideration and withdrawal of the rejections under 35 U.S.C. § 112, first paragraph, are respectfully requested.

Claims 1 to 3, 5, 6, 15, 17 and 19 to 21 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 7,194,696 (Mori) in view of U.S. Publication No. 2003/0094108 (Shiki) and further in view of Japanese Publication No. 11-034426 (Shiyuuyou)¹. Claim 4 was rejected under 35 U.S.C. § 103(a) over Mori in view of Shiki and Shiyuuyou and further in view of U.S. Patent No. 6,842,262 (Gillihan). Reconsideration and withdrawal of these rejections are respectfully requested.

The claims generally concern converting original data into print data processible by a printing apparatus, and more specifically concerns management of front and back sides of a printed sheet. In one aspect, a size of a printable region for borderless printing is sent to an application when borderless printing is set for a basic attribute via a first setting screen to be applied to whole print data, and the size of the printable region for borderless printing is sent to

^{1/} The February 3, 2010 Office Action included art-based rejections of Claims 7 to 12, which had been previously cancelled in the October 22, 2009 Amendment. Accordingly, these rejections are believed to be in error.

the application when borderless printing is set for a back-side attribute via a second setting screen to be applied to a plurality of pages which correspond to the back sides of printing media. Print data is then generated based on the basic attribute, the back-side attribute and the original data, which is generated by the application based on the sent size of the printable region for borderless printing.

By sending the size of the printable region for borderless printing to the application, original data is generated by the application based on the size of the printable region for borderless printing. This ordinarily prevents the need for magnification processing of the original data when borderless printing is set for the basic attribute or the back-side attribute.

Turning to specific claim language, amended independent Claim 1 is directed to a printing control method of converting original data into print data processible by a printing apparatus. The method includes displaying a first setting screen to set a basic attribute to be applied to whole print data and a second setting screen to set a back-side attribute to be applied to a plurality of pages which correspond to not the front sides of printing media but to the back sides of the printing media output in double-sided printing. A size of a printable region for borderless printing is sent to an application when borderless printing is set for the basic attribute received via the first setting screen, and the size of the printable region for borderless printing is sent to the application when borderless printing is set for the back-side attribute received via the second setting screen. The size of the printable region for borderless printing is bigger than a size of a printable region for printing with a border. Print data is generated based on the basic attribute, the back-side attribute and the original data, which is generated by the application based on the sent size of the printable region for borderless printing.

Independent Claims 15 and 17 are directed to an apparatus and a computer-readable medium, respectively, which substantially correspond to the method of Claim 1.

The applied art is not seen to disclose or suggest the features of the independent claims, and in particular, is not seen to disclose or suggest at least the features of sending a size of a printable region for borderless printing to an application when borderless printing is set for a basic attribute received via a first setting screen to be applied to whole print data, sending the size of the printable region for borderless printing to the application when borderless printing is set for a back-side attribute received via a second setting screen to be applied to a plurality of pages which correspond to the back sides of printing media, and generating print data based on the basic attribute, the back-side attribute and original data, wherein the original data is generated by the application based on the sent size of the printable region for borderless printing.

Mori is seen to disclose displaying setting screens for an entire document, chapters and pages, and setting print attributes using the displayed setting screens. However, the Office Action at page 5 concedes that Mori fails to teach a second setting screen to set a back-side attribute to be applied to a plurality of pages which correspond to not the front sides of printing media but to the back sides of the printing media. Accordingly, Mori is not seen to disclose or suggest sending a size of a printable region for borderless printing to an application when borderless printing is set for such a back-side attribute, and is not seen to disclose or suggest generating print data based on such a back-side attribute.

Moreover, Mori is not seen to disclose or suggest sending a size of a printable region for borderless printing to an application when borderless printing is set for a basic attribute received via a first setting screen to be applied to whole print data, sending the size of the printable region for borderless printing to the application when borderless printing is set for a

back-side attribute received via a second setting screen to be applied to a plurality of pages which correspond to the back sides of printing media, and generating print data based on the basic attribute, the back-side attribute and original data, wherein the original data is generated by the application based on the sent size of the printable region for borderless printing.

Shiki is seen to disclose color setting screens for front and rear sides in double-sided printing, such as the color setting screen for a rear side shown in Figure 9. However, Shiki is silent regarding the size of print areas, much less sending a size of a printable region for borderless printing to an application. Therefore, even if Mori and Shiki are combined as suggested in the Office Action, which Applicant does not concede is permissible, the resultant combination would still fail to disclose or suggest sending a size of a printable region for borderless printing to an application when borderless printing is set for a basic attribute received via a first setting screen to be applied to whole print data, sending the size of the printable region for borderless printing to the application when borderless printing is set for a back-side attribute received via a second setting screen to be applied to a plurality of pages which correspond to the back sides of printing media, and generating print data based on the basic attribute, the back-side attribute and original data, wherein the original data is generated by the application based on the sent size of the printable region for borderless printing.

Shiyuuyou is seen to disclose comparing a paper size for a front face and a rear face of print data for double-sided printing, and choosing the larger paper size of either the front face or the rear face as a paper size for a printed sheet. See Shiyuuyou, paragraph [0008]. If the paper size for the front face is chosen, scale-factor conversion is performed on the print data of the rear face such that the print data of the rear face fits the larger paper sheet size. See Shiyuuyou, paragraph [0010]. In the present claims, an application generates original data based

on a size of a printable region for borderless printing sent to the application, and print data is generated based on the basic attribute, the back-side attribute and the original data. In contrast, the printing control unit of Shiyuuyou is seen to receive print data from a client, and merely scales the print data to fit a chosen paper size.

Accordingly, Shiyuuyou is not seen to disclose or suggest sending a size of a printable region for borderless printing to an application when borderless printing is set for a basic attribute received via a first setting screen to be applied to whole print data, sending the size of the printable region for borderless printing to the application when borderless printing is set for a back-side attribute received via a second setting screen to be applied to a plurality of pages which correspond to the back sides of printing media, and generating print data based on the basic attribute, the back-side attribute and original data, wherein the original data is generated by the application based on the sent size of the printable region for borderless printing.

Gillihan has been reviewed, but is not seen to compensate for the above-noted deficiencies of Mori, Shiki and Shiyuuyou.

In view of the foregoing amendments and remarks, independent Claims 1, 15 and 17 are believed to be allowable over the applied art.

The other claims in this application are each dependent from the independent claims discussed above, and are therefore believed allowable over the applied art for at least the same reasons. Because each dependent claim is also deemed to define an additional aspect, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is in condition for allowance, and such action is courteously solicited.

CONCLUSION

No claim fees are believed due; however, should it be determined that additional claim fees are required, the Director is hereby authorized to charge such fees to Deposit Account 06-1205.

Applicant's undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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